

**Part I – Agency Profile**

**Agency Overview**

Research mission – investigation into forestry and rangeland resource management problems, forest nursery production, and related areas. Part of the College of Natural Resources, Forest Utilization Research also includes the Rangeland Center with a legislative mandate for interdisciplinary research, education and outreach as suggested by a partner advisory council to fulfill the University’s land-grant mission (Idaho Code § 38-715), and the Policy Analysis Group with a legislative mandate to provide objective data and analysis pertinent to natural resource and land-use issues as suggested by an advisory committee of Idaho’s natural resource leaders (Idaho Code § 38-714).

**Core Functions/Idaho Code**

The duty of the Experiment Station of the University of Idaho’s College of Natural Resources is to institute and conduct investigations and research into the forestry, wildlife and range problems of the lands within the state. Such problems specifically include forest and timber growing, timber products marketing, seed and nursery stock production, game and other wildlife, and forage and rangeland resources. Information resulting from cooperative investigation and research, including continuing inquiry into public policy issues pertinent to resource and land use questions of general interest to the people of Idaho, is to be published and distributed to affected industries and interests. (Idaho Code § 38-701, 38-703, 38-706, 38-707, 38-708, 38-709, 38-710, 38-711, 38-714, 38-715)

**Revenue and Expenditures**

Revenue	FY 2018	FY 2019	FY 2020	FY21
General Fund	\$1,347,100	\$1,281,100	\$1,435,500	\$1,421,000
<b>Total</b>	<b>\$1,347,100</b>	<b>\$1,281,100</b>	<b>\$1,435,500</b>	<b>\$1,421,100</b>
Expenditures	FY 2018	FY 2019		
Personnel Costs	\$1,106,900	\$1,121,800	\$1,244,200	\$1,258,400
Operating Expenditures	\$159,300	\$159,300	\$191,300	\$162,600
Capital Outlay	\$80,900	\$0	\$0	
Trustee/Benefit Payments	\$0	\$0	\$0	
FY20 1% Rescission/1% COVID/HB557	N/A	N/A	\$31,200	
FY21 5% General Fund Holdback				\$71,100
<b>Total</b>	<b>\$1,347,100</b>	<b>\$1,281,100</b>	<b>\$1,435,500</b>	<b>\$1,349,900</b>

**Profile of Cases Managed and/or Key Services Provided**

Cases Managed and/or Key Services Provided	FY 2018	FY 2019	FY 2020	FY2021
Number of Private Landowners Assisted:				
Pitkin Forest Nursery	1570	2082	2093	2898
Number of Seedling Industry Research Projects:				
Pitkin Forest Nursery	5	7	6	6
Number of:				
• Research Projects:				
Experimental Forest	16	15	14	15
Policy Analysis Group	12	12	13	5
Pitkin Forest Nursery	10	12	11	11
Rangeland Center	25	27	21	19
Mica Creek	N/A	N/A	5	3
• Teaching Projects:				
Experimental Forest	22	25	14	19
Policy Analysis Group	8	8	6	6
Pitkin Forest Nursery	6	4	5	3
Rangeland Center	12	14	15	10
Mica Creek	N/A	N/A	3	4
• Service Projects:				

<b>Cases Managed and/or Key Services Provided</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY2021</b>
Experimental Forest	12	12	13	14
Policy Analysis Group	11	11	4	3
Pitkin Forest Nursery	10	10	9	9
Rangeland Center	16	17	12	9
Mica Creek	N/A	N/A	1	1

**FY 2020 Performance Highlights**

**Policy Analysis Group (PAG)**

FY21 with its COVID-19 restrictions presented the Policy Analysis Group (PAG) with both challenges and opportunities to completing its mission of providing timely, scientific and objective data and analysis pertinent to resource and land use questions of general interest to the people of Idaho. The primary challenge was that PAG had thrived on in-person meetings with stakeholders and we were forced to reevaluate the way in which we developed and cultivated those relationships. Secondary was the inability to fill open positions including the position of Director and Research Scientist. Neither position was successfully filled in FY21 and is evidence in the reduction of research activity. The opportunity was that online methods allowed more availability of viewing our presentations both across the rural areas of the state as well as better interactions across state lines, the country, and globally. One example would be the opportunity for PAG to present alongside researchers from multiple universities, agencies, and a representative of the U.S. Department of State regarding forestry’s role in natural climate solutions to climate change. The event was viewed by over 300 participants representing more than 13 countries. On the opposite end of the spectrum is the 29th annual Family Foresters Workshop where the event participation doubled from past years with most participants coming from the Inland Northwest. In FY 2021 we hope to get back to our in-person meetings and historical staffing levels while using a virtual option to maintain that extended reach. In total PAG researchers provided seventeen structured presentations to a wide array of stakeholders reaching well over 1,200 attendees. These presentations are a function of our strong research program with PAG also completing an Idaho Experiment Station Bulletin, Report, and an Issue Brief in addition to three peer reviewed journal articles. We also leveraged our legislative support through extramural funding of over \$100,000 which allows us to support a range of undergraduate, graduate, and post-graduate research opportunities.

**Pitkin Forest Nursery (Nursery)**

In FY21, the Pitkin Nursery proved its resiliency by rapidly adapting to the COVID-19 pandemic to continue our mission of research, outreach, and education focused on reforestation and ecosystem restoration, as well as producing high-quality nursery stock for Idahoans. Demand for seedlings and information was at an all time high, where the Nursery provided information to 2,898 stakeholders through phone calls and emails to help achieve planting success, while selling 358,821 seedlings to 1,478 customers. Nursery personnel continued our legacy of public engagement through various events, including meeting with citizens at the Boise Capital City Public Market and the Moscow Farmers Market, and sharing research findings with land managers and private and agency nursery staff. The Nursery pursued 12 new and ongoing projects with various partners including the USDA Forest Service, PotlatchDeltic Corp., Hancock Forest Management, The Nature Conservancy, and Idaho State Department of Agriculture, Nursery and Florist Advisory Committee. New funding for research projects was \$229,770 and the combined funding for new and ongoing research was over \$1.6 million. Seedlings at the Nursery were grown by 25 UI students throughout the year, where they learned the principles of irrigation, pest identification and control, and business aspects of nursery operation. The Nursery is looking towards the future and continuing our tradition as the pre-eminent nursery program in the country due to funding allocated by the Idaho Legislature through Governor Little’s Building Idaho’s Future Initiative and the UI Experimental Forest to build two new state-of-the-art greenhouses. The new greenhouses will increase capacity for research, integration into college courses, professional training, and production of high-quality nursery stock.

**University of Idaho Experimental Forest (UIEF)**

In FY21, the University of Idaho Experimental Forest (UIEF) pursued a variety of innovative new projects that typify our role as the Idaho’s Land Grant University research, demonstration and teaching forest. Over \$7 million in new proposals were submitted, and over 30 students gained forestry experience working on the UIEF. An example of advancing cutting-edge forestry research and demonstration was the UIEF partnering with Idaho Dept. of Lands,

Northwest Management, Inc., and the Intermountain Forestry Cooperative to establish itself as the first Experimental Forest nationally to have a fully digitized, individual-tree stem map of all trees on our main, 8,300-acre timberlands on Moscow Mountain to support cutting-edge, technologically advanced forest management and research. This work has been presented at numerous venues and to hundreds of managers, including the Idaho Forest Owners Association annual Forest Owners Field Day on the UIEF (75+) and Forester's Forum (250+). For the first time ever, the UIEF hosted a semester-long research seminar series in Fall 2020 with 14 weekly presentations highlighting the range of current, published forestry research on the UIEF for over 25 registered students and numerous additional participants. In 2020 the UIEF established two committees to better engage our stakeholders: a Stakeholder Advisory Committee and a Non-Motorized Recreation Committee. These groups are proving extremely helpful for engaging the public in our management, as well as our research direction and forestry-oriented recreational outreach and education activities. We further worked with IDL on a \$300,000 Western Fire Managers Grant to reduce fuels and protect FUR research investments. Our social media influence increased broadly in 2020 to over 600 followers, with posts typically receiving over 100 likes. One recent forestry post was among the most popular on the main UI Instagram account, with over 1,450. In 2020-2021 the Experimental Forest mechanized the Student Logging Crew, now in its 49th year, acquiring a new log processor and skidder for educational and workforce training. All UI forestry students will now operate this heavy equipment on the UIEF as part of their education, developing applied, hands-on knowledge and skills for operational forestry that no other 4-year forestry program in the United States offers. After many years of planning, the UIEF is restructuring our staffing in 2021 with two new positions: a Senior Research Associate to conduct applied, hands-on research of interest to our forestry stakeholder groups, and a Forest Operations Training Supervisor to work closely with the Student Logging Crew and implement research and demonstration treatments. We completed over 2 miles of new forestry education hiking trails this year, with several new parking areas to better serve the public. We implemented over 300-acres of demonstration treatments that highlight active forest management, fuels reduction, and good stewardship.

#### **Rangeland Center (Center)**

The UI Rangeland Center continued to pursue its mission to use science to find long-term solutions for managing rangelands in FY21. Faculty associated with the Center published 14 peer-reviewed journal articles on a wide range of social, economic, and ecologic issues facing Idaho's rangelands. One such article showed land managers that contamination of water was more likely caused by recreationalists and wildlife than livestock and pointed to practical solutions to address the issue. Efforts to share the knowledge gained with the livestock industry, land managers, and other scientists continued with the Idaho Rangeland Fall Forum drawing 128 people in an online event and the Idaho Range Livestock Symposium bringing in 138 individuals. Center staff played a large role in putting together the annual Society for Range Management International Meeting, which had an attendance of 1,490 for the four-day event. Leveraging external funding from granting agencies continued to be a strength for the Center, with over \$2,129,000 in funds received in FY21. These funds went to support research projects including research on effects of grazing on sage-grouse. The rangeland center also sought funding to support students, including two undergraduate students working at the University's Rinker Rock Creek Ranch.

#### **Mica Creek Experimental Watershed (MCEW)**

In FY21, the MCEW continued to build on long-term research designed to assess the effects of Idaho forest Best Management Practices on water quantity, quality, streamflow regime, aquatic macroinvertebrates, and fish populations. A highlight of the current research was the synthesis of long-term fish monitoring data across the watershed. Project personnel are currently preparing two manuscripts on the fish community response to contemporary forest management practices. Preliminary results suggest that water temperatures never exceeded thresholds stressful to cold-water species and fish populations were not adversely impacted by timber harvest operations. MCEW personnel are also continuing to collect fish population information during ongoing harvest activity in the watershed. The MCEW also continues to serve as a long-term research site for a stream metabolism study by the National Council for Air and Stream Improvement (NCASI). The goal of this study is to provide predictive information that is transferrable across multiple watersheds from the regional to national scale. Project personnel facilitated the publication of an important peer-refereed paper on the effects of contemporary forest practices on nutrient and phosphorus dynamics in a commercially managed forest watershed (Deval et al., 2021). A second peer-refereed paper on the effects of timber harvest on water yield and runoff (Zhao et al., 2021) was published using data from BCEW, and project personnel assisted in the management of media communications resulting from the project.

**Part II – Performance Measures**

Performance Measure	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
<b>Goal 1</b>						
<i>Achieve excellence in scholarship and creative activity through an institutional culture that values and promotes strong academic areas and interdisciplinary collaboration among them.</i>						
1. Objective A, Measure I: Number of CNR faculty, staff, students and constituency groups involved in FUR-related scholarship or capacity building activities.	actual	50	64	54	62	-----
	target	49	51	52	52	54
2. Objective A, Measure II: Number and diversity of courses that use full or partially FUR funded projects, facilities or equipment to educate, undergraduate, graduate and professional students.	actual	28	43	41	38	-----
	target	24	25	26	26	28
3. Objective B, Measure I: An accounting of products (e.g., research reports, economic analysis, BMPs) and services (e.g., protocols for new species shared with stakeholders, policy education programs and materials provided, accessible data bases or market models).	actual	36	37	35	23	-----
	target	32	33	34	34	34
4. Objective B, Measure II: An accounting of projects recognized and given credibility by external reviewers through licensing, patenting, publishing in refereed journals, etc.	actual	16	24	40	32	-----
	target	14 <i>refereed articles</i>	15 <i>refereed articles</i>	16 <i>refereed articles</i>	16 <i>refereed articles</i>	16 <i>refereed articles</i>
<b>Goal 2</b>						
<i>Engage with the public, private and non-profit sectors through mutually beneficial partnerships that enhance teaching, learning, discovery, and creativity.</i>						
5. Objective A, Measure I: Document cases: Communities served and resulting documentable impact; governmental agencies served and resulting documentable impact; non-governmental agencies and resulting documentable impact; private businesses and resulting documentable impact; and private landowners and resulting documentable impact. Meeting target numbers for audiences identified below and identifying mechanisms to measure economic and social impacts	actual	1,835	2,839	2,842	3,150	-----
	target	1,250	1,750	1,850	1,850	1,850
<b>Goal 3</b>						
<i>Efficient financial management of FUR state appropriated dollars supporting Goals 1 and 2 and leveraging resources to secure external funding.</i>						
6. Objective A, Measure I: New funding sources from external granting agencies, private and public partnerships and other funding groups.	actual	17	14	22	18	-----
	target	14	15	16	16	17

**Performance Measure Explanatory Notes**

Performance Measure #1 – Seeking 20% growth by FY2023 based on increased staff resources in 2016 that allows more faculty, staff, students and constituency groups to be involved in FUR-related scholarship activities.

- Performance Measure #2 – Seeking 15% growth by FY2023 based on College and program goals to enhance coordination of course offerings and research.
- Performance Measure #3 – Seeking 15% growth by FY2023 based on a critical need to communicate with external stakeholders, and increase the pace of products produced.
- Performance Measure #4 – Seeking 25% growth by FY2023 based on increased staff resources in 2016 focused on research that will increase scientific outreach and communication.
- Performance Measure #5 – This is a new measure based on UI and College strategic goal to increase involvement and communication with external stakeholders. The target of 1,250 participants served was established from internal analysis of recent year participants.
- Performance Measure #6 – Seeking 25% growth based on analysis of projects started and completed in recent years, staff capacity, and the need to increase the pace of projects completed annually.

**For More Information Contact**

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